DIAGNOSIS OF TUBERCULOUS MENINGITIS BY LUMBAR PUNCTURE. M. Variot (La Presse Médicale, June 10, 1903).

The author claims that in the cytological examination of the cerebrospinal fluid, we are now in the possession of a method of investigation truly scientific to establish the diagnosis so often doubtful of meningeal tuberculosis, and even if therapeutically few results are attained by it, at least no harm is done. The presence of lymphocytes in abundance in the cerebrospinal fluid, indicate at least in infants, a meningeal reaction that is associated with the development of microorganisms. On the contrary, experience teaches us that the predominence of polynuclears in the cerebrospinal fluid corresponds with other meningeal conditions of a more benign type, which are more distinctly curable. The writer is able from twenty cases of meningeal tuberculosis, controlled by autopsy to speak positively. In 13 cases a pure lymphocytosis existed; in six cases a lymphocytosis predominated, one case showed an equal number of polynuclear leucocytes and lymphocytes. These cases presented the lesions of a tubercular meningitis with purulent exudate. Six cases of cerebrospinal meningitis showed a predominance of polynuclears. In 14 cases where for various reasons a bacillary meningitis was suspected, lumbar puncture never gave a lymphocytosis, and the cases cleared up without leaving traces. It is a negative control of wonderful value. The technic of the operation is simple; in the space between the 4th and 5th lumbar vertebræ puncture is made, and from 10 to 20 cc. of cerebrospinal fluid is drawn, either through a canula or a syringe. The liquid is received into a funnel-shaped tube, and centrifuged. The sediment is dried on a slide in an oven, and fixed with alcohol ether, and stained with hemateine and eosin or Unna's methylene blue, or thionine, or Ehrlich's triacid mixture. Hunting for Koch's bacillus is a much longer procedure and is uncertain. NOYES.

MENINGEAL HEMORRHAGE. Widal (La Presse Médicale, June 3, 1903).

Prof. Widal, writing of the diagnosis of meningeal hemorrhage, that it has become a fairly simple matter to distinguish this condition which formerly was very obscure. Kernig's sign demonstrates the presence of meningitis, and lumbar puncture by demonstrating the blood in the cerebrospinal fluid, proves the homorrhagic origin. A case of a woman aged thirty-nine years is mentioned. She had an apoplectiform attack, following intense headache, localized in the back of the neck, and vomiting. She was seen in the hospital in a state of semi stupor. Motor and sensory symptoms were negative, except a slight convergent strabismus of the right eye, and a slight ptosis. The knee-jerk was absent on the right side. Stiffness of the neck and Kernig's sign, the inability to produce full extension of the knee were both present. The diagnosis lay between tuberculous and syphilitic meningitis, hemorrhage in the meninges or hysteria. Lumbar puncture showed a cerebrospinal fluid, with a few red corpuscles and a uniform yellow tint which could not have come from traumatism of the needle. Death ensued by a second hemorrhage. Autopsy showed a hemorrhage under the arachnoid, arising from a ruptured aneurism, with blood collected below the right frontal lobe, between the brain and pia mater. The clot had lacerated some of the cerebral tissue, and was closely adherent to it. The aneurism had developed from one of the anterior branches of the right Silvian artery which was atheromatous, and the clot had plugged the opening in the vessel. The final hemorrhage had broken into the ventricle. Kernig's sign existed in this case though there was no involvement of the spinal cord, or general meningitis. There were three lumbar punctures made; the first showed no cells of any sort, the second two days later, showed a few red corpuscles, and a considerable number of polynuclears, well formed. The third puncture, five days later, contained red cells, some polynuclears, and a considerable number of lymphocytes. This coincides with the results of others that polynuclear cells are replaced by lymphocytes. In spinal cocainization with absolutely aseptic solution, polynuclear cells appear numerous enough to render the fluid turbid. They are replaced in a few days by lymphocytes, which eventually disappear. Thus an irritating but aseptic irritation of the meninges by the bloody solution just as by cocaine when used therapeutically causes the appearance and disappearance of the two types of leucocytes. NOYES.

PATHOGENESIS AND PROGNOSIS OF TABES. M. Faure (Journ. de med. de Bordeaux, Aug. 16, 1903).

In the opinion of this author syphilis does not play the important part usually assigned to it in the causation of tabes. Other infections and intoxications or simply physical or moral shock, mental strain, or privation must be considered as etiological factors in the disease. Though the majority of tabetics have suffered syphilitic infection, the symptoms of tabes first appear in many such subjects after other infections and intoxications. It may be said that in 60 per cent of the cases, no matter what the treatment, tabes is arrested in the early stages; or its evolution is so slow that its effect upon the duration of life is very slight. In but 30 per cent does the disease progress so rapidly as to justify the grave prognosis formerly given in this condition. Five per cent of the cases are clinically cured, while a like number progress rapidly and fatally, and their course is marked by fever and symptoms of infection. This febrile form of tabes has not hitherto been described, and runs a short course of a few months to two years. JELLIFFE.

THE PROGNOSIS OF TABES. Joseph Collins (Medical News, August 29, 1903).

The symptoms of tabes are classified in (1) the pre-ataxic stage; (2) the ataxic stage; (3) the profoundly incoördinate and hypotonic stage, often spoken of as the paralytic stage. The duration of these stages varies. In 140 cases of the author three years and five months elapsed between the first symptom of the disease and the appearance of the ataxia, but the period of five years is more probably correct.

The factors that influence the prognosis are (1) the clinical type of the disease; (2) what may be called the anatomical type of the disease, i.e., whether lumbar or cervical; (3) sex and age; (4) the individual, his occupation and the treatment. The prognosis is most favorable in the cases of a motor type, especially since the introduction of the Fraenkel system of exercises, and orthopedic apparatus. It is unfavorable when severe disturbance of the urogenital system and trophic symptoms are early and conspicuous manifestations. The prognosis is worse in cases of sudden onset, and better in cases of slow and insidious onset. The presence of recent syphilis is a serious factor due to the changes in the blood vessels. Cervical and cervico-bulbar tabes has a serious prognosis, also early involvement of the nerve supply of the larynx. The course of the disease is more rapid in women, in young tabetics, under thirty-five years of age, and in those whose occupation necessitates standing or fatiguing use of the legs. The pronounced cases common twenty-five years ago, are seldom seen today in private practice, due probably to improved methods of treatment. W. B. NOYES.

OSMIC ACID IN TRIGEMINAL NEURALGIA. J. B. Murphy (Journal Am. Med. Assoc., Aug. 22, 1903).

An additional case of this complaint treated by the intraneural injection of osmic acid after the method of Bennett, of London, is reported by J. B. Murphy. The patient, a man of seventy-six years, presented a trigem-